

CLAIMS

5 1. An ester-forming monomer characterized by being obtained by depolymerization of polytrimethylene terephthalate and having an acrolein content of no greater than 0.5 wt%.

10 2. An ester-forming monomer according to claim 1, wherein the ester-forming monomer is at least one selected from a group consisting of 1,3-propanediol, dimethyl terephthalate, bis(3-hydroxypropyl) terephthalate and terephthalic acid.

15 3. An ester-forming monomer according to claim 1, wherein the ester-forming monomer is dimethyl terephthalate, bis(3-hydroxypropyl) terephthalate or terephthalic acid, and the b value is no greater than 2.

20 4. An ester-forming monomer according to claim 2, wherein the ester-forming monomer is 1,3-propanediol and the Hazen color is 40 or below.

25 5. A process for production of an ester-forming monomer characterized by reacting polytrimethylene terephthalate with at least one compound selected from a group consisting of monoalcohols, 1,3-propanediol and water in the presence of a basic substance.

30 6. A process for production of an ester-forming monomer according to claim 5, which comprises a step of isolating the ester-forming monomer with complete or partial non-neutralization of the basic substance, after completion of the reaction in the presence of the basic substance.

35 7. A process for production of an ester-forming monomer according to claim 5, wherein the reaction is conducted at a pH of 7-14 and a temperature of 50-450°C.

8. A process for production of an ester-forming monomer according to claim 7, which comprises a step of isolating the ester-forming monomer with complete or partial non-neutralization of the basic substance, after completion of the reaction in the presence of the basic substance.

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9. A process for production of an ester-forming monomer characterized by reacting polytrimethylene terephthalate and 1,3-propanediol to first produce bis(3-hydroxypropyl) terephthalate and/or its oligomer, and
5 then further reacting this with a monoalcohol in the presence of a basic substance.

10. A process for production of an ester-forming monomer according to claim 9, which comprises a step of isolating the ester-forming monomer with complete or
10 partial non-neutralization of the basic substance, after completion of the reaction in the presence of the basic substance.

11. A polymer with an L value of 75 or greater and a b value of 10 or lower, obtained using at least 1 wt%
15 of an ester-forming monomer according to claim 1.

12. A fiber, film or molded article comprising a polymer according to claim 11.

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